

AMENDMENTS TO THE CLAIMS

Please cancel claims 2, 3, 5, 7, 8, 14, and 16-20 without prejudice or disclaimer, and amend the claims as follow:

1. (Currently Amended) A semiconductor layer, comprising:
a first layer comprising a Ga_2O_3 system single crystal substrate; and
~~a second layer obtained by replacing a part rather than all of oxygen atoms of the first layer with nitrogen atoms comprising an oxidation gallium containing nitrogen.~~
- 2-3. (Cancelled.)
4. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer comprises Ga_2O_3 , $(\text{In}_x\text{Ga}_{1-x})_2\text{O}_3$ where $0 \leq x < 1$, $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ where $0 \leq x < 1$, $(\text{In}_x\text{Al}_y\text{Ga}_{1-x-y})_2\text{O}_3$ where $0 \leq x < 1$, $0 \leq y < 1$, and $0 \leq x + y < 1$ as a main constituent.
5. (Cancelled.)
6. (Currently Amended) A semiconductor layer, comprising:
a first layer comprising a Ga_2O_3 system semiconductor;
a second layer comprising an oxidation gallium containing nitrogen a GaN system compound semiconductor and obtained by replacing a part or all of oxygen atoms of the first layer with nitrogen atoms; and
a third layer comprising a GaN system epitaxial layer grown on the second layer.
- 7-8. (Cancelled.)
9. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer consists of a single crystal $\beta\text{-}\text{Ga}_2\text{O}_3$.
10. (Previously Presented) A semiconductor layer according to claim 9, wherein the single crystal $\beta\text{-}\text{Ga}_2\text{O}_3$ has a prismatic shape having a square in cross section, and its axis

direction matches a-axis <100> orientation, b-axis <010> orientation, or c-axis <001> orientation.

11. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer comprises $(In_xGa_{1-x})_2O_3$ where $0 < x < 1$.

12. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer comprises $(Al_xGa_{1-x})_2O_3$ where $0 < x < 1$.

13. (Previously Presented) A semiconductor layer according to claim 1, wherein the first layer comprises $(In_xAl_yGa_{1-x-y})_2O_3$ where $0 < x < 1$, $0 < y < 1$, and $0 < x + y < 1$.

14. (Cancelled.)

15. (Previously Presented) A semiconductor layer according to claim 6, wherein the first layer consists of single crystal β - Ga_2O_3 .

16-20. (Cancelled.)

21. (Currently Amended) A semiconductor layer, comprising:
a first layer comprising a Ga_2O_3 system single crystal substrate; and
~~a second layer obtained by replacing a part rather than all of oxygen atoms of the first layer with nitrogen atoms comprising a Ga_2O_3 which contains nitrogen,~~
wherein the second layer comprises a GaN system compound semiconductor.